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TITLE: Observations of carbon chain chemistry in the envelopes of low-mass protostars

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ABSTRACT BODY: Observational results are reported from our surveys in the Northern Hemisphere (using the Onsala 20 m telescope) and the Southern Hemisphere (using the Mopra 22 m telescope) to search for 3 mm emission lines from carbon-chain-bearing species and other complex molecules in the envelopes of low-mass protostars. Based on a sample of approximately 60 sources, we find that carbon-chain-bearing species including HC₃N (and C₄H) are highly abundant in the vicinity of more than half of the observed protostars. The origin and evolution of these species, including their likely incorporation into ices in protoplanetary disks will be discussed.

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